

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants:	S. Pahlsson et al.	Attorney Docket No.:	FRAB127116
Application No.:	10/568382	Art Unit:	3743 / Confirmation No.: 1021
Filed:	February 14, 2006	Examiner:	C.J. Hall
Title:	APPARATUS AND METHOD FOR TREATMENT OF FOODSTUFFS WITH A GASEOUS MEDIUM FOR PROCESSING AND SUBSEQUENT DRYING		

DECLARATION OF ANDERS LASSING UNDER 37 C.F.R. § 1.132

TO THE COMMISSIONER FOR PATENTS:

I, Anders Lassing, declare that:

1. I am employed by John Beam Technologies AB ("JBT"; formerly called "Frigoscandia Equipment AB"). I joined JBT 1998. JBT is the assignee of the above identified U.S. Patent Application Serial No. 10/568,382, entitled *Apparatus and Method for Treatment of Foodstuffs with a Gaseous Medium for Processing and Subsequent Drying* ("the present application").

2. In 1988, I obtained a Master of Science in Mechanical Engineering from Lunds University.

3. Prior to my time with JBT, I was employed by Studsvik AB for six years. Studsvik is a research company within the nuclear power industry. Prior to My employment with Studsvik AB, I worked two years for Noss AB within the pulp and paper industry.

4. During my time with Studsvik, I was responsible for development and design of different type of test equipment for irradiation tests of material and nuclear fuel in a nuclear test reactor.

5. During my time at Noss, I was responsible for strength analysis of different types of equipment used in the production of industrial pulp and paper.

6. My first position at JBT was as a Mechanical Engineering Manager, which lasted for two years. My next position was as a development project leader for a spiral freezer family. One variant of the family is the one used in the present application. My position since 2002 has been Director of R&D and Engineering. The responsibilities of this position include research, development and engineering of different types of industrial food processing equipment for freezing, chilling, proofing, drying, cooking, coating etc., of food. The overall theme is to transport food on a belt and create certain conditions (temperature, humidity, air flow etc.) to obtain the desired environment for the food.

7. I have read the present patent application, including the claims. I have also read the Office Action with the Notification Date of September 14, 2010.

8. Based on my ability as one of ordinary skill in the art, I conclude that the phrases "essentially tight," as used in the present claims to describe to the relationship of the encapsulation to the end portion of the stack, and "fits tightly against," as used in the present claims to describe the relationship of the first end closure with the circumferential walls of the encapsulation, provide sufficient guidance to understand how to make and use the invention.

9. Support for my conclusion is based on my ability as one of ordinary skill in the art combined with the context and guidance provided in the specification and figures of the present application, as discussed below.

10. The present application describes embodiments of an apparatus and method for treatment of foodstuffs with gaseous medium for processing and subsequent drying that can be accomplished in one and the same apparatus. To this end, the specification describes an end portion of a stack surrounded by an encapsulation with a first end closure. The described purpose of the encapsulation is to direct flow of a second gaseous medium in such a manner that it is passed in the vertical direction from the encapsulation to the rest of the stack. See page 3, lines 24-28 and page 6, line 34 to page 7, line 7. The second gaseous medium is preferably overheated water vapour. See page 4, lines 9-11. The described purpose of the first end closure in its relation to the encapsulation is to form a roof over the conveyor belt and to direct the flow of the second gaseous medium down through the encapsulation stack portion and on to the non-encapsulated stack portion. See page 4, lines 26-32. This configuration results in foodstuffs first undergoing processing upon entering the stack by virtue of contact with the first gaseous medium, such as humid water vapor. Subsequently, as the foodstuffs are conveyed through the stack toward the encapsulation, they move away from the humid water vapor and water condensed therefrom, and undergo drying as they come into contact with the overheated water vapor that is supplied through the encapsulation. See page 4, lines 18-23 and page 11, lines 25-30.

11. The specification describes the specific relationships of the stack end portion, the circumferential walls of the encapsulation, and the first end closure. Starting

at page 9, line 25, the specification describes that the end portion 19 is surrounded by an encapsulation 22 that is essentially tight in the horizontal direction. The upper edge of the encapsulation 22 is described as fitting tightly against the first end closure 16. The very next sentence in the passage explains that these relationships of the components (specifically "fits tightly against") relates to a reasonable degree of sealing that prevents a significant flow of water vapour from passing. Figures 2-4 indicate that this tight fit, or seal, can be accomplished through the physical abutment of the structures. In this regard, the lower ends of the circumferential walls of the encapsulation are illustrated with a lip that is folded inward at ninety degrees and abuts against the cylindrical walls of the stack. The top edges of the circumferential walls are illustrated as abutting, or contacting the edges of the first end closure. Alternatively, the specification at page 10, line 2, indicates an embodiment wherein the sealing resulting from the tight fit or "essentially tight" configurations can be accomplished with a rubber strip.

12. Based on my review of the context provided by the application, combined with my ability as one of ordinary skill in the art, it is my conclusion that the "essentially tight" and "fits tightly against" language as used in the present claims clearly indicates the existence of a seal between the encapsulation and the stack, and between the first end closure and the circumferential walls. Based on the stated purpose of the encapsulation, the seal must merely provide a greater barrier to the flow of overheated water vapor than the combined layers of the conveyor belt in the encapsulated stack portion to maintain the vertical flow of the overheated water vapor through the encapsulated stack portion. The permeability of known conveyor belt elements is high, even considering the conveyance of regularly placed foodstuffs. Therefore, the seal must be sufficient to impede the flow of water vapour, but need not be complete and hermetic. The effect of minor vapour

escape does not negate the purpose of the apparatus because control over the degree of drying can be precisely and readily controlled by the adjustment other variables such as the speed of the conveyor belt, the length of encapsulation, and the relative rates of delivery of the first and second gaseous media into the stack and encapsulation, notwithstanding the minor vapour escape.

13. I hereby declare that all statements made on information and belief are believed to be true; and further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Date: March 9, 2011

  
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Anders Lassing